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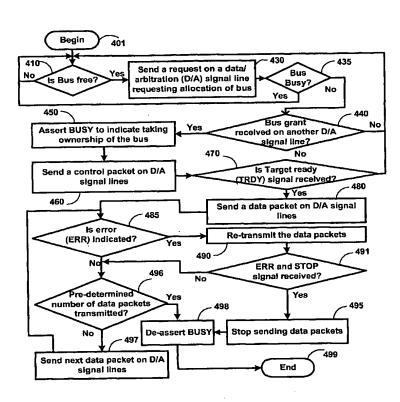
- (71) Applicant (for all designated States except US): CENTRE FOR DEVELOPMENT OF TELEMATICS [IN/IN]; Manigaon Road, Opp.New Mangalpuri, Chattarpur -Mehrauli, New Delhi 110 030 (IN).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SHARMA, Manish [IN/IN]; Dr. R. G. Sharma, New Ward No. 20, Khatiyon Ka Mohalla, Shiv Nagar, Sikar, Rajasthan (State) 332001 (IN). ROSHAN, Rakesh [IN/IN]; Sh. Pars Ram, R/O

Kamore P/O, Ramgarh Teh, Samba Dist. Jammu, Jammu and Kashmir(State) 181141 (IN). BITTANAKURIKE, Manjunath Narasappa [IN/IN]; #55, 6th Main Road, Avalahalli, BDA Layout, BSK III stage, Bangalore, Karnataka (State) 560 085 (IN). ARUNACHALAM, Bhavani Shanker [IN/IN]; # 219, 14th 'A' cross, IInd Block, R.T. Nagar, Bangalore, Karnataka (State) 560 032 (IN). RADHAKRISHNA, Suresh [IN/IN]; # 895, 3A Main, D-Block, IInd Stage, Rajaji Nagar, Bangalore, Karnataka (State) 560 010 (IN). CLEMEN'T, William [IN/IN]; # TC 27/2271, "Duncdin"Statue Road, Trivandrum, Kerala (State) 695001 (IN). JAISINGH, Joe [IN/IN]; # 299, Manorayana Palya, R.T Nagar P.O, Bangalore, Karnataka (State) 560 032 (IN).

- (74) Agent: THAPPETA, Narendra; Law Firm of Naren Thappeta, 158 Phase One, Adarsh Palm Meadows, Airport-Whitefield Road, Ramagundanahalli, Bangalore, Kamataka(State) 560 066 (IN).
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(54) Title: A NOVEL ARCHITECTURE FOR A MESSAGE BUS



An aspect of (57) Abstract: the present invention reduces the additional number of signal lines of a bus (180) for control signals by using a set of signal lines to transfer data bits in some durations and to transfer control signals in some other durations. In one embodiment, the same signal lines are used to transfer data in a data transfer phase, and for bus arbitration (150) in a bus (180) arbitration phase. As a result, the total number of signal lines of a bus (180) (bus width) is reduced. According to another aspect of the present invention, an arbitrator (150) block allocates the bus (180) to one of the requesting modules according to an assigned priority and least recently used (LRU) policy.

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